

# Notice of Allowability

Application No.

09/780,355

Examiner

Marc A Patterson

Applicant(s)

KIMURA ET AL.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 7/26/04.
2. ☒ The allowed claim(s) is/are 1-22 and 25-27.
3. ☒ The drawings filed on 12 February 2001 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☒ All b) ☐ Some\* c) ☐ None of the:
    1. ☒ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

## Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date \_\_\_\_\_
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

## DETAILED ACTION

### EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Tarik Nabi on October 15, 2004.

The application has been amended as follows:

Cancel Claims 23 – 24.

Cancel the abstract, which currently reads as follows:

-- There is disclosed a pyrolytic boron nitride double container for a source of molecular beams used in molecular beam epitaxy, wherein the transmissivity of an inner container of the pyrolytic boron nitride double container with respect to light having a wave number of  $2600\text{ cm}^{-1}$  to  $6500\text{ cm}^{-1}$  is 90% or less of that of an outer container. The pyrolytic boron nitride double container, which enables molecular beams to generate stably with good temperature controllability and high heat efficiency and which can be used in a stable manner, is provided through a simple process and at low cost, so that molecular beam epitaxial growth can be stabilized, quality of the epitaxial film can be improved, and even though the rise and drop in the temperature of the material melt is repeated, or even at an emergency suspension of the operation, the trouble due to breakage of the container can be prevented. --

And substitute the abstract as follows:

-- A pyrolytic boron nitride double container for a source of molecular beams used in molecular beam epitaxy, wherein the transmissivity of an inner container of the pyrolytic boron nitride double container with respect to light having a wave number of  $2600\text{ cm}^{-1}$  to  $6500\text{ cm}^{-1}$  is 90% or less of that of an outer container. The pyrolytic boron nitride double container, which enables molecular beams to generate stably with good temperature controllability and high heat efficiency and which can be used in a stable manner, is provided through a simple process and at low cost, so that molecular beam epitaxial growth can be stabilized, quality of the epitaxial film can be improved, and even though the rise and drop in the temperature of the material melt is repeated, or even at an emergency suspension of the operation, the trouble due to breakage of the container can be prevented. --

*Allowable Subject Matter*

2. The following is an examiner's statement of reasons for allowance: The prior art of record discloses a pyrolytic boron container having two layers, but fails to disclose a pyrolytic boron nitride double container having an inner container having a transmissivity with respect to light having a wave number of  $2600\text{ cm}^{-1}$  to  $6500\text{ cm}^{-1}$  for the entire length of a wall of the inner container and an outer container having a transmissivity with respect to light having a wave number of  $2600\text{ cm}^{-1}$  to  $6500\text{ cm}^{-1}$  for the entire length of a wall of the outer container, and an inner container transmissivity and outer layer transmissivity wherein the inner container transmissivity is 90% or less of the outer layer container transmissivity.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue

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fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### *Conclusion*

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marc Patterson, whose telephone number is (571) 272 – 1497. The examiner can normally be reached on Monday through Friday from 8:30 AM to 5:00 PM. If attempts to reach the examiner by phone are unsuccessful, the examiner's supervisor, Harold Pyon, can be reached at (571) 272 – 1498. FAX communications should be sent to (703) 872-9310. FAXs received after 4 P.M. will not be processed until the following business day.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pairdirect.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at (866) 217 – 9197 (toll – free).

Marc A. Patterson, PhD.

*Marc Patterson*  
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HAROLD PYON  
SUPERVISORY PATENT EXAMINER

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10/15/04